



REVOLUTIONIZE THE POWER GRID



**BUILD THE WORLD'S MOST POWERFUL
SUPERCOMPUTER**



**PIONEER THE NEXT-GENERATION
SMARTPHONE**



**INVENT A DEVICE CAPABLE OF DIAGNOSING
TUBERCULOSIS IN SECONDS**



**LAUNCH A START-UP THAT BECOMES THE
NEXT BIG THING**



**Our graduates have achieved all this.
How will you make your impact?**

What's Electrical Engineering?

Electrical engineers design many of the systems that we use every day, including the nation's electrical power grid, computer systems, mobile devices, communications satellites, biomedical devices, automatic control systems, robotics, nanotechnology, renewable energy, and much more. Our students use scientific and engineering principles to design new and better electronics, solve real-world challenges, and improve our quality of life.

What's Computer Engineering?

Computer engineers design computers and computer-based systems, and their work impacts nearly every aspect of modern technology: the Internet, smartphones, video games, quantum computers, biomedical equipment, autonomous vehicles, 5G networks, and much more. Computer engineers are, first and foremost problem solvers – they make computers work better, faster and more efficiently. Computer engineering is among the most lucrative fields in engineering, according to Forbes magazine.

Unlike electrical engineering or computer science, computer engineering primarily deals with how to build computer systems, hence there is more emphasis on hardware and low-level software that make up the systems. In contrast, computer science explores how to process information using computer systems, thus leading to a focus in software.

ECE – THE FUTURE IS WHAT WE DO.

**NC STATE
UNIVERSITY**

**Electrical and
Computer Engineering**

 **@NCStateECE**
 **ece.ncsu.edu**

**ECE Graduates solve problems
and change the world everyday.**

WHAT DO YOU WANT TO MAKE?

Powered by Renewable Energy.

ECE has partnered with the Center for Future Renewable Electric Energy Delivery and Management (FREEDM) to offer an undergraduate concentration in Renewable Electric Energy Systems (REES). This concentration enables students to understand how to generate secure, sustainable, and environmentally friendly energy to significantly improve U.S. energy independence and reduce carbon emissions.

Your Health. Our Technology.

Our students can minor in Nano Science and Technology through our Center for Advanced Self-Powered Systems of Integrated Sensors and Technologies (ASSIST). Students will be trained in the fundamentals of nano-scale materials, devices, and systems for a broad variety of applications within the world of wearable health monitoring systems – preparing them to contribute to this global industry.

Jump-Start Your Career

Electrical and computer engineers pursue a wide variety of opportunities after graduation. Our students go on to enter top-tier M.S. and Ph.D. programs, launch start-up companies, teach and conduct research at major research universities, and take leadership positions at top engineering firms, government laboratories, and corporations across the country.

Undergraduates who choose to enter the work force can expect an annual starting salary of over \$66,000, and our graduate students' average starting salaries exceed \$70,000. The ECE department has developed close ties with hundreds of corporations across the United States, including industry leaders such as Intel, IBM, Cisco, Cirrus Logic, Duke Energy and many more.



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